

## WOOD SUBSTRATE COATING SYSTEM

### ■ Description

VFI-505 is a high performance, aromatic, 100% solids, two component, one to one by volume, fluid applied, polyurea hybrid coating.

### ■ Usage

VFI-505 can be used to coat unfinished wood substrates for protection against moisture and abrasion. This coating provides a textured, wear-resistant and extremely durable surface.

### ■ Color

Black. Contact your VFI representative for additional colors.

## Physical Properties

### ■ Hardness

ASTM D-2240  
Shore A 94 - 96  
Shore D 57 - 61

### ■ Tensile

ASTM D-412  
Strength: 3212  
Elongation: 77%  
Permanent Set: 10% max.

### ■ Tear

ASTM D-624  
Strength 223 pli

### ■ Abrasion Resistance

Excellent.

### ■ Adhesion to Concrete

ASTM D-4541  
Primed with VFI-1007 Black  
- 800 lbs./in.<sup>2</sup> – with adhesive failure.

### ■ Chemical Resistance

Good resistance to inorganic bases, acids and hydrocarbon solvents. Fair resistance to chlorinated and oxygenated solvents. Good resistance to hot water up to 180° F.

## Liquid Component Properties

### ■ Solids

Weight: 100%  
Volume: 100%

### ■ Specific Gravity

Poly Component: 0.992 g/ml  
Iso Component: 1.143 g/ml.

### ■ Density

Poly Component: 8.26 lbs./gal.  
Iso Component: 9.52 lbs./gal.

### ■ Viscosity

Poly Component: 600 ± 200 cps @ 77°  
Iso Component: 700 ± 300 cps @ 77°

### ■ Flash Point

ASTM D-56 (TCC)  
Greater than 200°F.

### ■ V.O.C.

Conforms to all Air Pollution regulations. Contains no Volatile Organic Compounds.

### ■ Toxicity

Iso component contains polymeric isocyanate requiring fresh air supply respirator, gloves, and protective clothing during application.

### ■ Storage Stability

12 months in unopened containers @ 50°- 90°F.

## Application

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Thoroughly mix the colored component in order to re-suspend any pigment that may have settled out. Apply using hot, airless spray equipment capable of producing a minimum of 1000 psi and maintaining an application temperature of 120° - 130° F. The mixing ratio shall be maintained within 0.95 to 1.1 volume of isocyanate to 1 volume of polyol. Impingement mixing air purge spray guns are suggested for ease of application.

VFI-505 gels in 2-5 seconds and cures to handle in 10-30 seconds when applied using hot, airless spray equipment. Allow 1 to 4 hours for complete cure before placing coated surfaces into use.

Other variations of VFI-505 include the same polymer system supplied with a mixing ratio of one volume isocyanate component to two volumes of polyol. A slightly softer version with a shore D hardness is also available. Other properties that can be enhanced include anti-static properties and low coefficient of friction additives to aid in unloading bulk material and enhance wear properties. Please contact your V.F.I. for additional information.

**Corporate Office: P.O. Box 344 / Brookfield, WI 53008 / 800-307-9218 / 262-787-0400 / Fax: 262-787-0500**

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